

I. AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 2 and 4, and add new claims 6-16 as follows.

The following Listing of Claims replaces all prior listings, and versions, of claims in the instant application.

Listing of Claims:

1. (Currently Amended) A lubrication structure for a rolling bearing, comprising:
a lubrication oil hole that radially penetrates through an inner ring of the rolling bearing;

an oil accumulating room of which rotational axis is the same as a rotational axis of the rolling bearing and that accumulates lubrication oil by using a centrifugal force thereof, wherein the oil accumulating room forms an annular space that extends in a circumferential direction around a central shaft;

a lubrication oil supplying path that communicates with the oil accumulating room and the lubrication oil hole; and

a fin member that is installed in the oil accumulating room so only one end portion of the fin member in an axial direction is fixed on an inner surface of the oil accumulating room, and the fin member causes the lubrication oil to follow rotation of the oil accumulating room so that the lubrication oil is forcibly rotated,

wherein an oil supplying pressure generated by the centrifugal force causes the lubrication oil in the oil accumulating room to be supplied to an inside of the rolling bearing via the lubrication oil supplying path and the lubrication oil hole.

2. (Currently Amended) The lubrication structure for the rolling bearing according to claim 1, wherein the fin member extends in a radial direction and the an axial direction.

3. (Original) The lubrication structure for the rolling bearing according to claim 2, wherein the fin member is installed at a plurality of positions in a circumferential direction.

4. (Currently amended) A machine that uses a rolling bearing and has a lubrication structure for the rolling bearing, wherein the lubrication structure comprises:

a lubrication oil hole that radially penetrates through an inner ring of the rolling bearing;

an oil accumulating room of which rotational axis is the same as a rotational axis of the rolling bearing and that accumulates lubrication oil by using a centrifugal force thereof, wherein the oil accumulating room forms an annular space that extends in a circumferential direction around a central shaft;

a lubrication oil supplying path that communicates with the oil accumulating room and the lubrication oil hole; and

a fin member that is installed in the oil accumulating room so only one end portion of the fin member in an axial direction is fixed on an inner surface of the oil accumulating room, and the fin member causes the lubrication oil to follow rotation of the oil accumulating room so that the lubrication oil is forcibly rotated,

wherein an oil supplying pressure generated by the centrifugal force causes the lubrication oil in the oil accumulating room to be supplied to an inside of the rolling bearing via the lubrication oil supplying path and the lubrication oil hole.

5. (Original) The machine according to claim 4, wherein the machine is a gas-turbine engine or a supercharger.

6. (NEW) A lubrication structure for a rolling bearing, comprising:

a first lubrication oil hole that radially penetrates through a first inner ring of the rolling bearing;

a second lubrication oil hole that radially penetrates through a second inner ring of the rolling bearing, wherein the first inner ring and the second inner ring are disposed along a central axis of a shaft;

an oil accumulating room having a rotational axis that is the same as a rotational axis of the rolling bearing;

a lubrication oil supplying path that communicates with the oil accumulating room, the first lubrication oil hole and the second lubrication oil hole; and

a fin member that is installed in the oil accumulating room and causes lubrication oil to follow rotation of the oil accumulating room so that lubrication oil is forcibly rotated,

wherein an oil supplying pressure generated by the centrifugal force causes lubrication oil in the oil accumulating room to be supplied to an inside of the rolling bearing via the lubrication oil supplying path, the first lubrication oil hole and the second lubrication oil hole.

7. (NEW) The lubrication structure for the rolling bearing according to claim 6, wherein the fin member is fixed on an outer surface of a shaft end nut of the shaft so as to extend in an axial direction and in a radial direction.

8. (NEW) The lubrication structure for the rolling bearing according to claim 7, wherein the oil accumulating room is formed by a space defined by a rotary cup having a cavity, a disk member and the shaft end nut.

9. (NEW) The lubrication structure for the rolling bearing according to claim 8, wherein the lubrication oil supplying path includes a first flow path that penetrates through the disk member and a second flow path that communicates with the first lubrication oil hole and the second lubrication oil hole.

10. (NEW) The lubrication structure for the rolling bearing according to claim 9, wherein the first flow path communicates with the oil accumulating room and the first flow path is inclined relative to the shaft so a first distance between an end opening of the first flow path communicating with the oil accumulating room and the central axis of the shaft is larger than a second distance between another end opening of the first flow path and the central axis of the shaft.

11. (NEW) A supercharger comprising a lubrication structure for a rolling bearing, wherein the lubrication structure comprises:

- a first lubrication oil hole that radially penetrates through a first inner ring of the rolling bearing;

- a second lubrication oil hole that radially penetrates through a second inner ring of the rolling bearing, wherein the first inner ring and the second inner ring are disposed along a central axis of a shaft;

- an oil accumulating room having a rotational axis that is the same as a rotational axis of the rolling bearing;

- a lubrication oil supplying path that communicates with the oil accumulating room, the first lubrication oil hole and the second lubrication oil hole; and

- a fin member that is installed in the oil accumulating room and causes lubrication oil to follow rotation of the oil accumulating room so that lubrication oil is forcibly rotated,

wherein an oil supplying pressure generated by the centrifugal force causes lubrication oil in the oil accumulating room to be supplied to an inside of the rolling bearing via the lubrication oil supplying path, the first lubrication oil hole and the second lubrication oil hole.

12. (NEW) The lubrication structure for the rolling bearing according to claim 11, wherein the fin member is fixed on an outer surface of a shaft end nut of the shaft so as to extend in an axial direction and in a radial direction.

13. (NEW) The lubrication structure for the rolling bearing according to claim 12, wherein the oil accumulating room is formed by a space defined by a rotary cup having a cavity, a disk member and the shaft end nut.

14. (NEW) The lubrication structure for the rolling bearing according to claim 13, wherein the lubrication oil supplying path includes a first flow path that penetrates through the disk member and a second flow path that communicates with the first lubrication oil hole and the second lubrication oil hole.

15. (NEW) The lubrication structure for the rolling bearing according to claim 14, wherein the first flow path communicates with the oil accumulating room and the first flow path is inclined relative to the shaft so a first distance between an end opening of the first flow path communicating with the oil accumulating room and the central axis of the shaft is larger than a second distance between another end opening of the first flow path and the central axis of the shaft.

16. (NEW) The supercharger according to claim 11, wherein the supercharger is boat supercharger, a ship supercharger or a vessel supercharger.